

COVID-19 Infection

Signs and Symptoms	<ul style="list-style-type: none"> Estimated 25-40% of cases asymptomatic Main: fever, cough, short of breath, chills, fatigue, myalgia, headache, sore throat, loss of smell / taste Severe disease: pneumonia, respiratory failure, stroke, pediatric multisystem inflammatory syndrome
Incubation	The estimated incubation period is 5 days (range 2-14 days)
Case classification	<p>Confirmed:</p> <ul style="list-style-type: none"> Detection of SARS-CoV-2 RNA in a clinical specimen using a molecular amplification detection test <p>Probable (interim until CSTE case classification is finalized):</p> <ul style="list-style-type: none"> Compatible clinical syndrome AND epidemiologic link to a laboratory positive case with no confirmatory test result; OR Positive antigen; OR Death certificate includes "COVID-19" or "SARS-CoV-2" with no confirmatory test result <p>Suspect: Positive serology with no prior history of being a confirmed or probable case</p>
Treatment	Experimental treatments under investigation; no vaccine available.
Duration	Likely contagious ~2 days before onset until symptoms improve; asymptomatic case may be contagious. Duration not established. May be PCR positive 4+ weeks, but transmission risk unknown.
Exposure	Person-to-person transmission assumed primarily through respiratory droplets from coughing or sneezing, but may occur by close personal contact (e.g., touching mouth, nose, or eyes with contaminated hands); airborne transmission from aerosol generating procedures and possibly in indoor spaces without good ventilation; rarely fecal contamination may be an exposure source.
Laboratory testing	<p>COVID-19 testing is available at Washington State Public Health Laboratories (PHL) and academic and clinical laboratories. PHL does not require preapproval for counties. Testing at PHL is prioritized for:</p> <ul style="list-style-type: none"> Healthcare workers and first responders (e.g., public safety, fire fighter EMS) Illness clusters in a facility or group (e.g., healthcare, school, corrections, business) Severe cases of lower respiratory illness (hospitalized or fatal) without alternative diagnosis <p>For testing at PHL, see specimen collection, shipping and handling information for COVID-19 on the PHL Laboratory Test Menu. LHJs need to enroll in QRP to electronically complete forms.</p> <ul style="list-style-type: none"> Best specimens (collect using appropriate infection prevention) <ul style="list-style-type: none"> Nasal (not NP) swab using synthetic swab in 2-3 ml viral transport media (self-swab demo video at https://www.doh.wa.gov/Emergencies/NovelCoronavirusOutbreak2020COVID19/HealthcareProviders) If intubated, lower respiratory sample (sputum, BAL or tracheal aspirate) in sterile container Also consider second nasal swab for rapid flu and respiratory panel at a clinical laboratory Shipping and handling information: Keep specimens cold (2-8°C) up to 72 hours until receipt at PHL, otherwise freeze $\leq -70^{\circ}\text{C}$; follow the COVID-19 Submission Process including having two identifiers and source on specimens and form.
Public health actions URGENT	<p>Determine if a case was likely exposed or infectious in a facility or group. Prioritize healthcare-associated or fatal cases and clusters/outbreaks. Investigate case contacts. Ensure essential variables for cases and contacts are in one of designated data flows. Option to use COVID-19 WDRS form.</p> <p>Inform the case to stay home while symptomatic except to get medical care; to call the provider before visiting and identify themselves as having COVID-19; to separate themselves from others (particularly sleeping area and bathroom) to avoid sharing household items such as dishes, towels, or bedding; and to practice respiratory etiquette and frequent hand hygiene. See: https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/index.html. Close contacts should quarantine 14 days from last exposure.</p> <p>Provide the following education materials as needed to cases and contacts: patients with confirmed or suspected COVID-19 and persons exposed to a confirmed COVID-19 case; providers may use these and: unexposed patients with COVID-19 symptoms.</p> <p>For current COVID information see: https://www.cdc.gov/coronavirus/2019-ncov/index.html and https://www.doh.wa.gov/Emergencies/Coronavirus</p>

COVID-19 Infection – General

1. DISEASE REPORTING

A. Purpose of Reporting and Surveillance

1. To identify infections due to COVID-19.
2. To prevent the spread of COVID-19.

B. Legal Reporting Requirements

1. Healthcare providers: **immediately notifiable to local health jurisdiction**
2. Healthcare facilities: **immediately notifiable to local health jurisdiction**
3. Laboratories: **immediately notifiable to local health jurisdiction** including **negative results**: <https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/20200307-COVID-19LabReporting.pdf>
4. Local health jurisdictions: **immediately notifiable to Washington State Department of Health (DOH) Office of Communicable Disease Epidemiology (CDE)**
5. Employers: outbreaks or suspected transmission in the workplace notifiable to the local health jurisdiction (Governor order July 2020)

C. Local Health Jurisdiction Investigation Responsibilities

1. Contact CDE (206-418-5500 or 877-539-4344) regarding possible COVID-19 clusters.
2. Determine exposures and contacts as indicated. Ensure that appropriate infection control practices are implemented if testing is pending.
3. For confirmed and antigen-positive probable cases, complete either a CREST interview or a DOH COVID-19 form (<https://www.doh.wa.gov/Portals/1/Documents/5100/420-110-ReportForm-COVID19.pdf>). Ensure case data is entered or imported into the Washington Disease Reporting System (WDRS) as a Coronavirus case and the Disease as COVID-19. Investigate all identified contacts of confirmed or antigen-positive cases and household and intimate contacts of other probable cases. See Case-Contact guidance.
4. For outbreak reporting to Department of Health there are four options for LHJs:
 - a. Create an outbreak event in WDRS and link all outbreak-associated cases. To get needed Outbreak Manager permission contact covid19wdrsdevs@doh.wa.gov. Do not link household contacts of outbreak-associated cases or others not actually present at the outbreak setting. A [training video](#) (start at minute 9:40) has step-by-step information, slides, and a template for a roster upload OR
 - b. Send a complete [short or full outbreak reporting form](#) by email to doh-ncov-epi@doh.wa.gov or fax to Communicable Disease Epidemiology 206-364-1060 OR
 - c. Roster upload: complete a linelist [Excel file – request example or see training video in item (a)] and send to doh-ncov-epi@doh.wa.gov for roster upload and WDRS outbreak event ID creation OR
 - d. Report the outbreak by phone to the DOH duty epidemiologist at 206-418-5500.

2. THE DISEASE AND ITS EPIDEMIOLOGY

A. Etiologic Agent

Human coronaviruses are named for crown-like surface spikes. The coronavirus subgroups are alpha, beta and gamma, and tentatively delta. Coronaviruses previously known to infect humans were: alpha coronaviruses, 229E and NL63 (cause mild to moderate upper respiratory illness); and beta coronaviruses, SARS-CoV (severe acute respiratory syndrome [SARS]), OC43 and HKU1 (upper respiratory), and MERS-CoV (Middle East respiratory syndrome.) In December 2019, China first reported SARS-CoV-2 (initially called 2019 novel coronavirus) cases. The illness due to SARS-CoV-2 was named COroNaVirus Disease-2019 (COVID-19) by the World Health Organization (WHO).

B. Description of Illness

Initial common [symptoms](#) are fever, cough, and shortness of breath, as well as chills, headache, fatigue, muscle aches, sore throat, congestion or runny nose, nausea, diarrhea and loss of taste or smell. An estimated 80 percent of symptomatic infections are mild to moderate. An estimated 25-40% of all infections are asymptomatic, and a person may be identified in a presymptomatic stage. Severe to critical complications in about 20% include pneumonia, respiratory distress, arrhythmias, myocarditis, damage to other organs such as liver or kidneys, blood clots (hypercoagulability), encephalomyelitis, stroke, and secondary infections. Preterm delivery may occur. Those over age 65 years; males; those with underlying conditions, such as diabetes, heart disease, or lung disease; and those negatively impacted by racism are at higher risk of severe or fatal infection. Regardless of disease severity, recovery may take up to months, with persisting fatigue and shortness of breath. A rare pediatric multisystem inflammatory syndrome has been associated with COVID-19 with symptoms including fever, rash, conjunctivitis, and swelling of the extremities. A few adult multisystem inflammatory syndrome cases may have also occurred.

Duration of infectivity and extent of immunity are uncertain and are being studied. At least short-lived immunity is probably generated. There are reports from China and South Korea of cases of recurrent SARS-CoV-2 RNA detection (with or without symptoms) among patients who had resolved symptoms, which could represent either re-infection or intermittent viral RNA shedding. At least case had demonstration of infection with a phylogenetically distinct SARS-coronavirus-2 strain. Risk of recurrence is unknown.

C. COVID-19 Infection in Washington during the 2020 Pandemic

The first US case of COVID-19 was reported January 2020 in Washington. WHO declared a pandemic on March 11, 2020. Global cases surpassed 23 million in mid-August. For updated case counts see below.

Washington: <https://www.doh.wa.gov/Emergencies/Coronavirus>.

US: https://covid.cdc.gov/covid-data-tracker/#cases_casesinlast7days

Global: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports/>

D. Reservoirs

The reservoir for SARS-CoV-2 is unknown but may be pangolins or bats. Genetic sequencing found the virus causing COVID-19 is most closely related to SARS-CoV so may share its reservoirs. SARS-CoV infects people and several types of animals. Cats, dogs, mink, and zoo and wild animals have had documented SARS-CoV-2 infections but are not considered to have a role contributing to the outbreak among humans.

E. Modes of Transmission

Sustained person-to-person transmission has occurred with case clusters in families, social groups, and healthcare settings, particularly long-term care facilities. Based on other coronaviruses, person-to-person transmission is likely primarily through respiratory droplets and small particles produced from coughing, sneezing, singing, talking, or breathing. There can be airborne transmission from aerosol generating procedures and possibly in indoor spaces without good ventilation where particles can concentrate. Appropriate PPE should be used for medical procedures creating aerosolized respiratory secretions. Transmission may occur through close personal contact, such as shaking hands or touching an object or surface with the virus on it, and then touching mouth, nose, or eyes. Fecal transmission is theoretically possible but likely rare.

F. Incubation Period

The estimated incubation period is 2-14 days, with a median of 5-6 days.

G. Period of Communicability

Likely contagious at least 2 days before onset until symptoms improve; asymptomatic cases are communicable. May be PCR positive > 4 weeks but risk for spread is unknown.

H. Treatment

Medical care is supportive, with clinical trials are underway for various therapeutics. Consult with an infectious disease specialist for current recommendations.

I. Vaccine

Phase III vaccine trials are underway, but an effective vaccine is not currently available.

3. CASE DEFINITIONS

A. Case Classification (2020 CSTE)

Clinical Criteria

In the absence of a more likely diagnosis:

- At least **two** of the following: fever (measured or subjective), chills, rigors, myalgia, headache, sore throat, nausea or vomiting, diarrhea, fatigue, congestion or runny nose OR
- At least **one** of the following: cough, shortness of breath, difficulty breathing, new olfactory disorder, new taste disorder OR
- Severe respiratory illness with at least one of the following: Clinical or radiographic evidence of pneumonia **or** acute respiratory distress syndrome (ARDS)

Laboratory Criteria

Laboratory evidence uses a method approved or authorized (e.g., Emergency Use Authorization) by the U. S. Food and Drug Administrations (FDA) or designated authority.

Confirmatory laboratory evidence:

- Detection of SARS-CoV-2 RNA in a clinical specimen using a molecular amplification test

Presumptive laboratory evidence:

- Detection of SARS-CoV-2 by antigen test in a respiratory specimen

Supportive laboratory evidence

- Detection of specific antibody in serum, plasma, or whole blood
- Detection of specific antigen by immunocytochemistry in an autopsy specimen

Epidemiologic evidence – one or more of the following exposures in the 14 days before onset of symptoms:

- Close contact* with a PCR or antigen positive case of COVID-19 disease; OR
- Member of a risk cohort as defined by public health authorities during an outbreak

** Close contact is generally defined as being within 6 feet for at least 15 minutes (cumulative over 24 hours, regardless of mask use [unless fit-tested]) or a single intense exposure (e.g., kissing). However, it depends on the exposure level and setting; for example, in the setting of an aerosol-generating procedure in healthcare settings without proper PPE, this may be defined as any duration contact. Data are insufficient to precisely define a duration of exposure that constitutes prolonged exposure and thus a close contact.*

Vital Records Criteria:

A death certificate that lists COVID-19 disease or SARS-CoV-2 as an underlying cause of death or a significant condition contributing to death.

Confirmed Case

Meets confirmatory laboratory evidence.

Probable Case

- Meets clinical criteria AND epidemiologic evidence with no confirmatory laboratory testing performed for SARS-CoV-2.
- Meets presumptive laboratory evidence.
- Meets vital records criteria with no confirmatory laboratory testing performed for SARS-CoV-2.

Suspect Case

Meets supportive laboratory evidence with no prior history of being a confirmed or probable case.

4. LABORATORY DIAGNOSIS AND SERVICES

A. Laboratory Diagnosis

SARS-CoV-2 testing is available from Washington State Public Health Laboratories (PHL), academic and commercial laboratories. PHL uses a Real-time Reverse Transcriptase Polymerase Chain Reaction (rRT-PCR) assay from Centers for Disease Control and Prevention (CDC) to detect SARS-CoV-2 in respiratory specimens. PHL can facilitate shipping of tissue or other specimens to CDC, if indicated (e.g., autopsy specimens). For specimen collection and submission see:

<https://www.doh.wa.gov/Portals/1/Documents/5240/SCSI-2019-nCoV.pdf>

B. SARS-CoV-2 Test Types

Diagnostic testing for COVID-19 is changing rapidly. Currently available tests are various types of PCR, various types of antigen tests, serology, and culture.

PHL can currently perform only PCR for SARS-CoV-2, but many commercial and academic tests have been developed. Test types include nucleic acid amplification test or NAAT (i.e., PCR), detection of antigen (viral protein coat), and serology identifying specific IgM, IgG, or total antibody. It is extremely important to use only tests that have FDA Emergency Use Authorization (EUA) or Approval, and to understand the test characteristics before using it for clinical care or infection prevention decision-making. Products approved for use may not have specificity and sensitivity information available. See the FDA website for extensive information about various tests for COVID-19:

<https://www.fda.gov/medical-devices/emergency-situations-medical-devices/faqs-diagnostic-testing-sars-cov-2>

For information about antigen testing see:

- <https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antigen-tests-guidelines.html>
- <https://www.aphl.org/programs/preparedness/Crisis-Management/Documents/APHL-SARSCov2-Antigen-Testing-Considerations.pdf>

C. Test Interpretation

Even with high sensitivity and specificity,

If a **false positive PCR** result is suspected, check that the Ct (cycle threshold) for a PCR test is not unusually high (≥ 30), have the laboratory evaluate for any obvious signs of cross-contamination, and repeat PCR testing on the original specimen or, if specimen is unavailable, on a new sample as soon as possible. If the PCR is positive, consider it a case. If the repeat test is negative, do a follow-up PCR on an additional sample collected at least 24 hours later. With two consecutive negative tests, consider the original positive PCR result a false positive.

If a **false positive antigen** result is suspected, particularly for an asymptomatic person in a low prevalence setting, have the laboratory evaluate for any obvious signs of cross-contamination, and do a PCR testing on the original specimen or, if specimen is

unavailable, on a new sample taken as soon as possible. If the PCR is positive, consider it a case. If the PCR test is negative, consider the original result a false positive. Also do a PCR for antigen positive results in a health or long-term care facility without an outbreak.

If a person has **consistent symptoms followed by a positive test** done over 7 days after onset, such as having a fever and cough and then testing positive two weeks later, it cannot be certain that the earlier symptoms were due to COVID-19. The specimen date should be the reference date for the person's isolation period and for identification of close contacts. If symptoms precede the positive test by < 7 days AND symptoms are highly suspicious for COVID-19 (loss of taste and/or smell, or multiple symptoms compatible with COVID-19) use the symptom onset date for contact isolation and test date for isolation decisions.

If a person has a positive test done followed by onset of consistent symptoms soon afterwards, such as a positive test and then a fever and cough three to four days later, the test collection date should be used for contact isolation and symptom onset for isolation decisions. Symptoms starting six or more days after a positive test are unlikely to be due to COVID-19.

Persons with **indeterminate or inconclusive** results should be retested and should be isolated as though positive until results are available. Also consider the clinical picture to determine if the person has consistent symptoms.

Note that **negative** results do not definitively rule out COVID-19. Retest if indicated (e.g., symptoms) or high suspicion. Negative results can occur with asymptomatic persons and tests that are less sensitive; therefore do not assume a person with a negative test is uninfected (<https://www.nejm.org/doi/full/10.1056/NEJMp2015897>). Do a PCR test immediately for a negative antigen test in a person in a long-term care facility with consistent symptoms. Negative PCR results in an infected person are more likely for a sample taken before onset of symptoms, early in the symptomatic period, or more than a week after onset. See: <https://www.cdc.gov/coronavirus/2019-ncov/community/strategy-discontinue-isolation.html> and <https://www.acpjournals.org/doi/10.7326/M20-1495>

A **repeat positive** molecular amplification detection test for SARS-CoV-2 RNA within 3 months of the initial report should not be counted as a new case for surveillance purposes.

Currently, consider **reinfection** when a person has a positive PCR or antigen (not antibody) result more than 90 days from their previous positive results AND other causes for any symptoms have been ruled out.

Collect the following information:

- Test type and retesting results
 - If a positive PCR test, ask the Ct value (expect a true positive to be < 35 because low Ct values indicate high viral burden) and if the laboratory had an unusual number of positives on the same PCR plate or run. Persistent RNA (PCR) is expected to be more likely than persistent antigen positive.

- If a positive antigen test, try to get a PCR test on the same specimen or on a new specimen (see: <https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antigen-tests-guidelines.html>).
- If possible, also request a PCR test be repeated on the specimen or on a new specimen taken within hours of the positive specimen.
- Clinical information for both the initial and current positive tests, including if appropriate an infectious disease consult
- Recent risk factors for exposure
- Any additional testing information (such as results for influenza, viral panel, etc.)
 - This includes getting the previous SARS-CoV-2 report. If possible, determine if any previous SARS-CoV-2 positive samples from the patient are still available and ask the laboratory to hold them.

If reinfection is suspected based on the above information (exposure, symptoms, and laboratory results), put the person in isolation. If COVID-19 cannot be ruled out, initiate contact tracing.

If there is an alternative diagnosis to explain the current symptoms or if laboratory testing is not supportive of a current infection, the person can be released from isolation.

If the patient meets the above criteria the specimen may be forwarded to the PHL, where it may be referred out for sequencing. Use the [Microbiology form](https://www.doh.wa.gov/Portals/1/Documents/5230/302-013-Micro.pdf) (<https://www.doh.wa.gov/Portals/1/Documents/5230/302-013-Micro.pdf>) for sample submission, including the request “For SARS-CoV-2 genomic testing” and mark with “Pass through for genotyping”; please include the PCR Ct value if available. The specimen should be shipped cold (2-8°C) on ice packs, or if previously frozen the specimen should be shipped on dry ice. Specimens may be stored for up to 72 hours under refrigeration at 2-8°C, if the specimen is arriving at WA PHL ≥ 72 hours after collection the specimen should be frozen at $\leq -70^{\circ}\text{C}$ and shipped on dry ice.

Genomic analysis at a research center can indicate if an infection is more likely to be new or persistent shedding if samples from both time periods can be sequenced. Genetic analysis will not be timely enough for decision regarding isolation and contact tracing.

If additional testing results (sequencing or viral culture) indicate a confirmed reinfection per DOH, alert the WDRS Devs (COVID19WDRSDevs@doh.wa.gov). The WDRS Devs will create the new re-infection event separate from the original event and also help make sure the appropriate labs are on the correct events. While awaiting results, additional investigation information can be entered and saved locally, such as on paper forms.

If **symptoms are compatible with other agents** during periods with high levels of respiratory virus infections, when testing for COVID-19 also consider obtaining a second nasal swab or specimen for rapid flu testing and a viral respiratory panel. As applicable to the clinical situation, also consider testing for infections with specific treatment available (e.g., legionellosis, other bacterial pneumonia, influenza, RSV). A particular concern is a potential dual outbreak of influenza and COVID-19 in a healthcare or congregate setting.

D. Specimen Collection for PCR

The healthcare provider (HCP) should wear a NIOSH approved and fit tested N95 or higher-level respirator (or facemask if a respirator is not available), eye protection, gloves, and a gown when actively collecting clinical specimens for SARS-CoV-2 testing. When obtaining a specimen, have the patient masked except when taking the specimen and stand to one side of the patient to avoid direct coughs or sneezes.

Refrigerate all specimens at 2-8°C and ship cold for receipt within 72 hours; if exceeding 72 hours holding time, freeze at $\leq -70^{\circ}\text{C}$ and ship on dry ice. Face mask, eye protection, and gloves should be used when observing a person self-collect a specimen.

Specimens from Living Patients:

For a known exposure, ideally test at least five to seven days from the last exposure and no sooner than 48 hours after first exposure.

Acceptable specimens from living patients for testing at PHL include:

- Nasal swab (preferred)
- Nasopharyngeal swab
- Mid-turbinate swab
- Lower respiratory tract fluid (BAL, tracheal aspirate, or sputum) – if intubated

Under observation but not necessarily a healthcare provider, patients may collect a nasal swab, which reduces the need for close contact and use of PPE for a provider. See: <https://www.doh.wa.gov/Emergencies/NovelCoronavirusOutbreak2020COVID19/HealthcareProviders> and <https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/Self-SwabNasalCollectionInstructions.pdf>

See detailed instructions for specimen collection and submission under COVID-19 at <https://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/PublicHealthLaboratories/MicrobiologyLabTestMenu>.

When testing at a commercial or academic laboratory, see that laboratory's website for instructions for specimen collection and submission.

Post-mortem Specimens:

A medical examiner or coroner can submit specimens directly to CDC. Testing at CDC takes at least four to six weeks.

If an autopsy is NOT performed, collect the following post-mortem specimens:

- Only upper respiratory tract swab: nasopharyngeal swab
- Separate NP swab and OP swab specimens for testing of other respiratory pathogens (e.g., rapid influenza testing and respiratory panel – not at PHL)

If an autopsy is performed, collect the following post-mortem specimens:

- Upper respiratory tract swabs: nasopharyngeal swab in viral transport medium tube

- Lower respiratory tract swab: lung swab from each lung in separate viral transport medium tubes
- Separate clinical specimens for testing of other respiratory pathogens and other postmortem testing as indicated
- Formalin-fixed autopsy tissues from lung or upper airway

Follow all infection prevention guidance if COVID-19 is possible or confirmed:

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-postmortem-specimens.html>.

CDC may request additional specimens, such as serum or stool, in cluster investigations.

E. Shipping to PHL

Store and ship specimens at the temperatures indicated above. For details see Coronavirus at:

<https://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/PublicHealthLaboratories/MicrobiologyLabTestMenu>

Note that PHL require all clinical specimens have **two** patient identifiers, a name **and** a second identifier (e.g., date of birth) on both the specimen label and on the submission form. Due to laboratory accreditation standards, specimens will be rejected for testing if not properly identified. Also include specimen source and collection date.

Specimen submission forms should be completed electronically via QRP. To enroll, contact wacovidtest@doh.wa.gov or 206-418-5419. Before submitting more than 50 specimens at a time to PHL call 206-418-5419. Along with the patient and submitter names, include the dates of collection and illness onset, race and ethnicity (providing demographic data specified in Coronavirus Aid, Relief, and Economic Security Act), and patient address and phone. Also make sure there is contact information for the submitter.

F. Free or Low Cost Testing and Testing Reimbursement

Free or low-cost testing is available at several locations, regardless of immigration status: <https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/TestingSiteOnlineResources-LHJ.pdf>

“Health care providers are not required to confirm immigration status prior to submitting claims for reimbursement. Health care providers who have conducted COVID-19 testing of any uninsured individual ... may be eligible for claims reimbursement through the program as long as the service(s) provided meet the [coverage](#) and [billing](#) requirements.” <https://www.hrsa.gov/coviduninsuredclaim/frequently-asked-questions>

G. Available Commercial Tests for SARS-CoV-2

A large number of tests including the one in use at PHL have received FDA Emergency Use Authorization. No test has been given FDA approval. For FDA authorizations for diagnostic tests see: <https://www.fda.gov/medical-devices/coronavirus-disease-2019-covid-19-emergency-use-authorizations-medical-devices/vitro-diagnostics-euas>

5. ROUTINE CASE INVESTIGATION

WAC 246-101-017 is an emergency notifiable conditions reporting rule effective 8/6/2020 and in effect for 120 days. The emergency rule:

- Explicitly designates SARS-CoV-2 (COVID-19) as a notifiable condition
- Requires health care providers, health care facilities, laboratories, and local health jurisdictions to report race, ethnicity, and other essential information for cases or suspected cases of COVID-19
- Requires reporting of negative laboratory results

A. Case investigation and contact tracing

Refer to the separate case investigation document available under Coronavirus at:

<https://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/NotifiableConditions/ListofNotifiableConditions>

B. Outbreak investigations

Refer to separate outbreak investigation documents for healthcare settings and non-healthcare workplaces available under Coronavirus at:

<https://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/NotifiableConditions/ListofNotifiableConditions>

1. Definitions for COVID-19 outbreaks in various settings

a. Long-term care facility

(<https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/InterimCOVID-HCOutbreak.pdf>):

- One resident or healthcare worker with laboratory positive (PCR or antigen) COVID-19, **OR**
- Two or more residents or healthcare workers with new-onset respiratory symptoms consistent with COVID-19 within 72 hours of each other

b. Inpatient hospital setting

(<https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/InterimCOVID-HCOutbreak.pdf>):

- Two or more cases of laboratory positive COVID-19 (PCR or antigen test) in patients 7 or more days after admission for a non-COVID condition, with epi-linkage **OR**
- Two or more cases of laboratory positive COVID-19 (PCR or antigen test) in HCW with epi-linkage who do not share a household, and who are not listed as a close contact of each other outside of the workplace during standard case investigation or contact tracing **OR**
- A combination of two or more cases of laboratory positive (PCR or antigen test) COVID-19 in HCW and patients with epi-linkage

An epi-linkage is defined as:

While in the facility during the 14-days prior to prior to the onset of symptoms:

- Having an overlap in admission or work assignment on the same unit or ward, OR
- Having the potential to have been within 6 feet for 15 minutes or longer

c. Outpatient healthcare setting

(<https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/InterimCOVID-HCOutbreak.pdf>):

- Two or more cases of laboratory positive COVID-19 in patients or staff with epi-linkage who do not share a household, and are not listed as a close contact of each other outside of the workplace during standard case investigation or contact tracing

d. Non-healthcare workplace (for a separate workplace outbreak investigation see <https://www.doh.wa.gov/Portals/1/Documents/5100/420-284-Guidance-NonHC-Workplace.pdf>):

- Two or more cases of laboratory positive COVID-19 (PCR or antigen test), **AND**
- At least two cases have symptom onsets within 14 days of each other, **AND**
- Plausible epi-linkage in the workplace (e.g., case-patients work on the same shift or in the same building, or benefit from employee sponsored transportation or housing), **AND**
- No other known epi-linkage outside of the workplace (e.g., case-patients do not share a household, and there is no epi-linkage suggesting transmission is more likely to have occurred during private carpooling or social interactions outside of the workplace).

e. Non-healthcare congregate setting (not including correctional facilities)

- Two or more cases of laboratory positive COVID-19 (PCR or antigen test), **AND**
- At least two cases have symptom onsets within 14 days of each other, **AND**
- There is no plausible epidemiological evidence of transmission in a shared location other than the congregate setting

f. School

(<https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/FallGuidanceK-12.pdf>)

- Two or more cases of laboratory positive COVID-19 (PCR or antigen test) among students or staff, **AND**
- The cases have symptom onsets within a 14-day period of each other, **AND**
- Plausible epi-linkage in the school, **AND**

- No other known epi-linkage outside of the school (e.g. cases do not share a household, and no epi-linkage suggesting transmission is more likely to have occurred during extracurricular activities or in other settings)

g. Department of Corrections (DOC) facility

- Two or more cases of laboratory positive COVID-19 (PCR or antigen test) in incarcerated individuals occurring within 14 days who reside in the same living area, **OR**
- One or more case(s) of laboratory positive COVID-19 (PCR or antigen test) in an incarcerated individual **AND** one or more case(s) of laboratory positive COVID-19 (PCR or antigen test) in DOC staff working in proximity to the incarcerated individual case(s) occurring within 14 days

Incarcerated individual COVID-19 cases occurring in intake separation areas are not included in the definition above unless new COVID-19 transmission is thought to be occurring within the intake separation area or elsewhere in the facility.

h. Community:

- Five or more cases of laboratory positive COVID-19 (PCR or antigen test), **AND**
- Plausible epi-link outside of a workplace or household (e.g., common event or venue), **AND**
- Cases had interactions with each other for a period shorter than 2 days

2. Investigation guidance

The DOH COVID-19 outbreak form is available to record information (<https://www.doh.wa.gov/Portals/1/Documents/5100/420-033-ReportForm-COVID19-Outbreak.pdf>). Only the yellow highlighted fields are essential for entry. The second page of the form is for optional use by the local health jurisdiction to assess whether the site has control measures in place. Specific outbreak investigation guidance is available at: <https://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/NotifiableConditions/ListofNotifiableConditions>

3. Reporting investigations

Outbreaks in workplaces or other congregate settings should be reported to DOH. Any of the following means is sufficient to report an outbreak to DOH:

- Create an outbreak event in WDRS and link all outbreak-associated cases. To get needed Outbreak Manager permission contact covid19wdrsdevs@doh.wa.gov. Do not link household contacts of outbreak-associated cases or others not actually present at the outbreak setting. A [training video](#) (start at minute 9:40) has step-by-step information, slides, and a template for a roster upload **OR**
- Email a complete [short or full outbreak reporting form](#) to doh-ncov-epi@doh.wa.gov or fax to Communicable Disease Epi 206-364-1060 **OR**

- Roster upload: complete a linelist [Excel file – request example or see training video in item (a)] and send to doh-ncov-epi@doh.wa.gov for roster upload and WDRS outbreak event ID creation OR
- Report the outbreak by phone to the DOH duty epidemiologist at 206-418-5500.

To create an outbreak event in WDRS, a user with “outbreak manager permissions” can click the  icon. Email covid19wdrsdevs@doh.wa.gov for help getting this permission.

Name an outbreak cluster using following format (replace italicized items as appropriate):

2020 *county* COVID-19 *facility_name* *facility_unique_id*¹ *cluster_number*²

¹ facility unique id is only needed for facilities with multiple locations: add city, street name, or facility number as appropriate

² number of cluster: only needed if the same facility has repeated clusters

Complete the “COVID-19 Outbreak” question package. Do **not** use the “Outbreak/Exposure Information” question package. Critical fields in the COVID-19 Outbreak question package include: Investigation status, accountable county, site name and address, facility type and subtype, and date of first case symptom onset.

Provide information about outbreak cases by linking case events to the outbreak event in WDRS (). This can replace completing the case count fields in the “COVID-19 Outbreak” summary question package. Cases arising from secondary transmissions of cases associated with the cluster should not be linked.

To link an existing WDRS case (person) event to the outbreak event (detailed instructions available on the [WDRS User Group Sharepoint](#)):

- Open the outbreak event
- Click on **(View)** for ‘linked event(s)/contact(s)’
- Change operation to ‘Link to Existing Event’
- Click on button to Select Event
- Navigate to the WDRS case (person) by entering name, birthdate or WDRS number and click to select the person
- Change Link Type to “Cluster”
- Go to bottom of page and click ‘Save’
- Repeat steps a-f for each WDRS case (person) event you want to link to the outbreak event

As another option, an automated roster linking process is available to link multiple cases to an outbreak event:

- Create a simple 3-column table in a .csv file for one or more outbreaks. The LinkType should always be “Cluster”.

	A	B	C
1	Case.CaseID	LinkTo	LinkType
2	[CASE EVENT ID]	[OUTBREAK EVENT ID]	Cluster
3			

- Send the completed table to COVID19WDRSDevs@doh.wa.gov.

LHJs can use coviddata.imt@doh.wa.gov for notification of cross-border situations and the LHJ data liaison can help notify other counties about outbreaks and cases from the other counties being linked to an outbreak.

Additional resources for outbreak investigations are below:

- An employer must not reveal confidential employee health information [CFR (Code of Federal Regulations) § 1630.14 Medical examinations and inquiries specifically permitted.] <https://www.eeoc.gov/wysk/what-you-should-know-about-covid-19-and-ada-rehabilitation-act-and-other-eeo-laws>
- Resources for facility type and subtype: <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?chart=2007> and <https://www.bls.gov/sae/additional-resources/naics-supersectors-for-ces-program.htm>
- Determining if the person is an essential worker in a critical infrastructure sector (<https://www.governor.wa.gov/sites/default/files/WA%20Essential%20Critical%20Infrastructure%20Workers%20%28Final%29.pdf>)
- Notify Washington Department of Labor and Industries if there is a non-compliant workplace (Venetia Runnion, runv235@LNI.WA.GOV) or if employees are in imminent danger (runv235@LNI.WA.GOV and Covid19@lni.wa.gov).
- For testing strategies in high-density critical infrastructure workplaces with a confirmed case see: <https://www.cdc.gov/coronavirus/2019-ncov/community/worker-safety-support/hd-testing.html> Note that the June 13th version does not cover antigen testing.
- For testing strategies in congregate settings see: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/broad-based-testing.html>

6. INFECTION PREVENTION

A. Healthcare Settings

For the most current information see a list of CDC recommendations related to COVID-19 and healthcare settings, including general infection control, personal protective equipment, and specialty settings (dialysis, long-term care) see:

<https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/COVID-19-InfectionPreventionCDCGuidanceCatalog.pdf>

B. Community-wide Measures

On March 13, 2020, the Washington Governor ordered the first of several community mitigation measures including closing non-essential businesses and banning large gatherings anywhere in the state (concerts, sporting events, social gatherings, and religious services); closure of all K-12 schools public and private statewide through the remainder of the 2019-

2020 school year; closing restaurants, bars, and recreational venues; and closing nursing homes to visitors except in life and death situations. A statewide mask requirement, with limited exceptions, was ordered on June 23, 2020 (<https://www.governor.wa.gov/news-media/inslee-announces-statewide-mask-mandate>). See <https://www.governor.wa.gov/office-governor/official-actions/proclamations> for other COVID-19 related community measures enacted by Governor Inslee. Cloth masks are not sufficient protection to prevent exposure but may reduce transmission. When masks are required, face shields alone are not a substitute for face masks.

A phased approach to reopening businesses or gatherings began in May, 2020. Four phases to opening were based on five factors: disease activity, testing capacity and availability, case and contact investigations, risk to vulnerable populations, and health care system readiness: <https://coronavirus.wa.gov/what-you-need-know/covid-19-risk-assessment-dashboard>. A DOH dashboard has aggregate case and hospitalization data; testing data can be downloaded: <https://www.doh.wa.gov/Emergencies/NovelCoronavirusOutbreak2020COVID19/DataDashboard>

Municipalities may decide separately to close certain facilities (e.g., government offices, libraries, community centers, parks) to the public.

General measures are recommended to reduce workplace and community transmission. See: <https://www.cdc.gov/coronavirus/2019-ncov/php/open-america/key-resources.html>

For cleaning recommendations see: <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/cleaning-disinfection.html>.

1. Workplace measures

Recommend or require telework. Activate continuity of operations plans (COOP) with a special emphasis on maintaining only mission essential functions. Establish thresholds for workplace closures based on transmission in the workplace.

Mask use in shared public areas was recently required in Washington by a Governor order. Consider measures such as limiting persons entering the business, spacing check-out lines, using cash-less payment, and increasing cleaning of high touch surfaces such as door handles and of bathrooms. For OSHA guidance see: <https://www.osha.gov/Publications/OSHA3990.pdf>. For employer information and factsheets for specific work types see: <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/businesses-employers.html>

2. Individual actions

Maintain social distancing. If available, use telework or other options. Practice respiratory etiquette and frequent hand hygiene, particularly when in public areas. When in shared indoor or outdoor common areas (e.g., office, store, apartment hallway, elevator, public transportation, crowded park) wear a cloth face covering to prevent potential transmission but also maintain a distance of six feet from others. When outdoors, a mask is not needed if sufficient spacing is possible.

If fever or cough or other [symptoms](#) of COVID-19 develop, stay home. Keep separate from others in the household (if possible, having a separate sleeping area and bathroom)

and avoid sharing household items such as dishes, towels, or bedding. If seeking healthcare, call the provider before visiting and report any fever or respiratory symptoms.

For COVID-19 issues related to pets see: <https://www.cdc.gov/coronavirus/2019-ncov/downloads/covid-19-pets-prevention.pdf>

C. Travel Measures

As of August 2020, Centers for Disease Control and Prevention (CDC) revised their recommendation to avoid nonessential travel to all global destinations with new information and guidance based on the risk of COVID-19 transmission at the destination. Check the website for the most current information about specific destinations at <https://www.cdc.gov/coronavirus/2019-ncov/travelers/index.html>, and general guidance about safe travel at <https://www.cdc.gov/coronavirus/2019-ncov/travelers/travel-during-covid19.html>

International travelers entering the United States do not have a required 14-day quarantine and do not have a requirement for public health monitoring. If an international or interstate traveler arriving in Washington has been exposed to COVID-19 or thinks they might have been exposed while traveling, they should stay home and away from others. They should check for fever, cough, and shortness of breath for 14 days from the last day of close contact with the known or likely case or setting. They should not go to work or school and should avoid public places for 14 days (self quarantine).

Travelers arriving from international travel who are or become ill within 14 days should be reported to a CDC Quarantine Station by flight crew or Customs and Border Protection through established protocols. Travelers who self-report illness within 14 should be reported by the LHJ to DOH or to the CDC Quarantine Station. CDC Quarantine Station will coordinate with DOH and the LHJ of residence regarding follow-up of acutely ill travelers identified at entry.

CDC is recommending investigations of contacts if a passenger was symptomatic during or shortly after a flight. When feasible, include monitoring of asymptomatic contacts for 14 days. A contact developing symptoms should be isolated and be medically evaluated. At 14 days, contacts should have a final interview to assure they remained asymptomatic.

ADDITIONAL RESOURCES

Guidance for Healthcare Providers

[https://www.doh.wa.gov/Emergencies/NovelCoronavirusOutbreak2020COVID19/Healthcare Providers](https://www.doh.wa.gov/Emergencies/NovelCoronavirusOutbreak2020COVID19/HealthcareProviders) and <https://www.cdc.gov/coronavirus/2019-nCoV/hcp/index.html>

Guidance for Businesses and Other Sites

Washington State: Essential business guidance, Phase 1-3 business activity guidelines: <https://www.governor.wa.gov/issues/issues/covid-19-resources/covid-19-reopening-guidance-businesses-and-workers>

Washington essential workers in healthcare settings, public safety or other critical infrastructure:

<https://www.governor.wa.gov/sites/default/files/WA%20Essential%20Critical%20Infrastructure%20Workers%20%28Final%29.pdf>

Recommendations (general, businesses and workers, school, childcare, and farm and agricultural workers):

<https://www.doh.wa.gov/Emergencies/NovelCoronavirusOutbreak2020COVID19/ResourcesandRecommendations>

Centers for Disease Control and Prevention (CDC) has prepared guidance materials for multiple settings including workplaces, schools, child care, colleges, and gatherings and community events: <https://www.cdc.gov/coronavirus/2019-ncov/community/index.html>

For overall Labor & Industry recommendations see: <https://www.lni.wa.gov/safety-health/safety-topics/topics/coronavirus>

Confidential L&I consultations are available: <https://www.lni.wa.gov/safety-health/preventing-injuries-illnesses/request-consultation/>

Guidance for Public Queries

Some of the documents below are available in multiple languages:

<https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/COVIDcasepositive.pdf>

<https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/COVIDexposed.pdf>

<https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/COVIDconcerned.pdf>

<https://www.doh.wa.gov/Emergencies/NovelCoronavirusOutbreak2020/HealthEducation>

<https://www.doh.wa.gov/Emergencies/NovelCoronavirusOutbreak2020COVID19/FrequentlyAskedQuestions>

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This document was created from information from the Centers for Disease Control and Prevention: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/index.html>

UPDATES

May 2020: document created

June 5, 2020: Appendix 2 added

June 16, 2020: LTC outbreak definition expanded to include single case among resident or staff

July 26, 2020: added symptoms and complications; added comments of use of cloth masks in the definition of a close contact and in Appendices; self-collection of nasal swabs allowed without medical provider observation; added information for sources of free or low cost testing; added information about homelessness; changed return to work criteria; updated discontinuation of transmission-based precautions in healthcare settings; limited contact tracing for Probable cases to household members; ending isolation and quarantine added to Appendix 1 Section D; expanded Appendix 2

August 13, 2020: case definition (Section 3) includes new olfactory disorder or new taste disorder as a consistent symptom, case definition includes presumptive laboratory evidence as antigen test in respiratory specimen, case definition includes antibody test or detection of antigen by immunocytochemistry in autopsy specimen as supportive laboratory evidence, presumptive laboratory evidence (positive antigen) alone is sufficient for a Probable classification, case definition epi linkage no longer includes travel or residence to an area with sustained ongoing transmission; added specific approach for a suspected false positive result (Section 4A);

added details about reinfection (Section 4A); includes new reporting requirements in WAC 246-101-017 (Section 5); updated ending transmission-based precautions (Section 6B); updated recommendations for ending isolation (Appendix 1 Section D)

August 25, 2020: case definition (Section 3) includes new olfactory disorder or new taste disorder as a consistent symptom, case definition includes presumptive laboratory evidence as antigen test in respiratory specimen, case definition includes antibody test or detection of antigen by immunocytochemistry in autopsy specimen as supportive laboratory evidence, presumptive laboratory evidence (positive antigen) alone is sufficient for a Probable classification, case definition epi linkage no longer includes travel or residence to an area with sustained ongoing transmission; expanded case investigation for a Probable case with an antigen positive test results to be the same as for a Confirmed case; CDC dropped the recommendation that returning international travelers have a 14 day quarantine period.

October 9, 2020: specified that laboratories should report negative results; LHJ outbreak reporting options added (Section 1C4); Section 2 updated information on potential airborne transmission and on recurrent infection; updated information on animal infections; Section 4B interpretation of laboratory tests includes potential false positive and false negative results, investigating a case of potential reinfection, and optimal timing for specimen collection; Infection Prevention from Section 5 was separated into a new document; outbreak definitions were summarized in Section 5B; Section 6 specified that incoming international travelers do not need public health monitoring; Appendices on case investigation and on long-term care or workplace cluster investigation were separated into new documents.

Next date: close contact specified as *cumulative* 15 minutes of contact *over 24 hours*